

# ROUNDUP

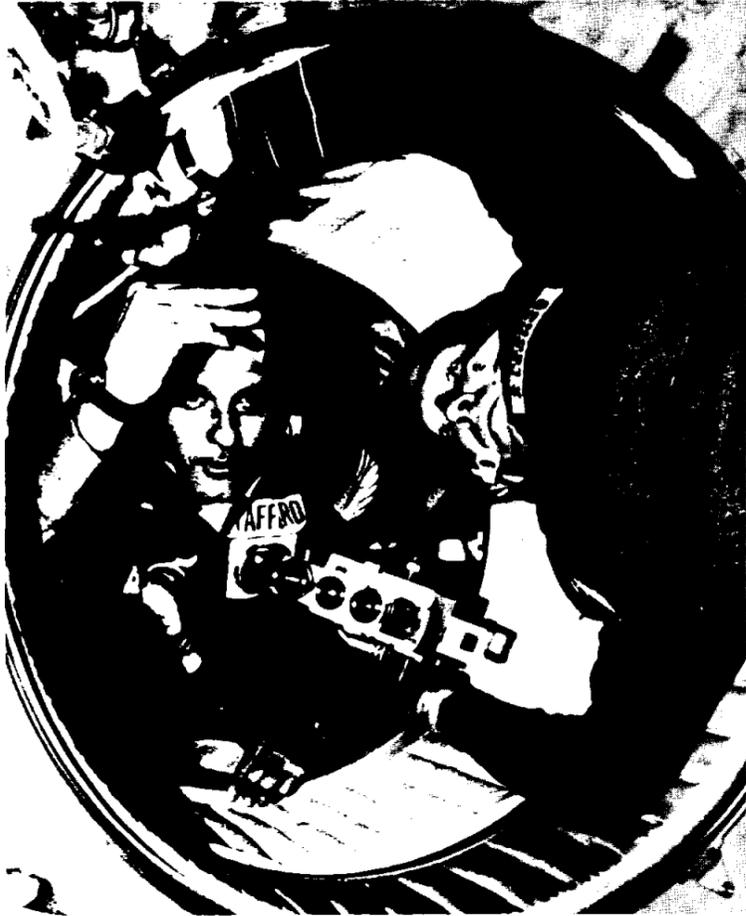
NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS



VOL. 14 No. 16

Friday August 1, 1975



ONBOARD ACTIVITY—Astronaut Thomas P. Stafford and Cosmonaut Aleksey A. Leonov are at the hatchway leading between the Apollo's Docking Module and the Soyuz spacecraft's Orbital Module. These two crewmen were the respective commanders of the ASTP crews.

## Apollo Crew Still In Semi-Isolation

The Apollo astronauts remain in semi-isolation in Honolulu, Hawaii. They were expected to have returned to Houston July 26; however, their return was delayed because of pulmonary irritation resulting from inhalation of a toxic gas onboard the Apollo Command Module during their return to earth last Friday.

The astronauts were admitted to Tripler U.S. Army Hospital after reporting that they were experiencing discomfort in the chest when breathing deeply. They were given cortisone to relieve the irritation and reportedly have "improved each day and currently are feeling well."

The isolation period is a precautionary measure to prevent undue exposure to infectious organisms since their immune responses were reduced by the cortisone therapy. They were released from Tripler on Wednesday and will remain in semi-isolation for the next seven days.

According to JSC officials, during the entry, two switches enabling the earth landing system functions were not activated in time to begin the normal sequence automatically. This may have happened as the result of the crew's attention being diverted in the cabin during this time.

Then on the basis of altimeter readings, the crew manually commanded the apex cover jettison and drogue chute deploy a few seconds later. The Reaction Control System (RCS) command switch was not set to off which could have prevented further RCS firings.

With the drogue chutes out, the RCS then fired rapidly to correct the vehicle rates. The crew quickly closed the RCS then fired rapidly to correct the vehicle rates. The crew quickly closed the RCS isolation valves; however, the oxidizer downstream of the isolation valves continued to be expelled as vapor while the control system continued to call for thruster firings. One of the commanded thrusters fires di-

rectly over the inlet opening for the cabin pressure relief valves.

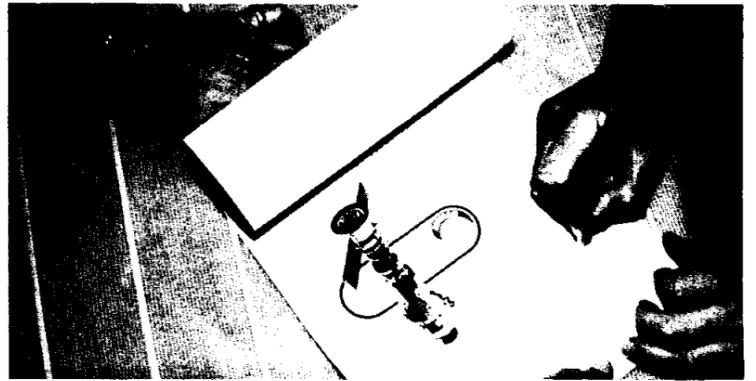
During this time, the cabin relief valves were drawing outside air into the cabin to equalize the outside and inside pressures. An undetermined amount of oxidizer vapors were drawn into the cabin by this process, causing the reported cloud with resultant eye-irritation and coughing.

Once the crew recovered from the surprise and discomfort of this cloud and activated the two ESL switches, the automatic system commanded the RCS OFF. The crew properly deployed the main chutes manually at about 9,000 feet.

The automatic system which had been armed late, did command the

main chute deployment 6 seconds later after the manual crew command. Upon landing in the water, the spacecraft was in Stable II attitude (upside down). Tom Stafford unstrapped, climbed back over the couches and unpacked the oxygen masks and passed them to all the crewmembers. Once in Stable I (right side up) the postlanding ventilation system was activated and the side hatch was opened slightly. These steps apparently cleared up the cabin to the crew's satisfaction and they remained inside for normal recovery.

According to Astronaut Chief John Young, "Any of the astronauts would have performed just as the Apollo crew did once they realized what the problem was."



JOINT CERTIFICATE—The hands of Cosmonaut Valeriy N. Kubasov are seen as he adds his name to the signature on the Soviet side of the official joint certificate marking an historic moment during the rendezvous day of the ASTP mission. The left hand of Astronaut Donald K. Slayton is seen at left.

## Mendenhall Receives Honors

Edward D. (Ted) Mendenhall, a research pilot in the Aircraft Operations Division, FOD, received the Navy Preliminary Evaluation award during recent graduation exercises for members of Class 67 of the U.S. Naval Test Pilot School.

Rear Admiral F. Taylor Brown, commander of the Naval Air Test Center, Patuxent River, Maryland, presented the award to Mr. Mendenhall upon completion of the 11-month test pilot training program.

The U.S. Naval Test Pilot School trains engineering test pilots for the four U.S. military services, the Coast Guard, the aircraft industry, and many foreign nations. The

flight syllabus of 120 hours includes training and testing in 11 types of airplanes. This flight phase of the course is climaxed by a four-flight evaluation of an aircraft not previously flown by the student and is termed the Navy Preliminary Evaluation. It is similar to the evaluation and report conducted on all new naval aircraft.

Mendenhall will be applying his recently acquired knowledge in his present assignment to the JSC pilot group that will be involved in the upcoming flight tests of the Grumman Shuttle Training Aircraft. This flight test is presently scheduled to begin in September 1975 at the Grumman Calverton, Long Island Facility.



AWARD—RAdm F. Taylor, commander of the Naval Air Test Center, presents the Navy Preliminary Evaluation award to Edward D. Mendenhall during graduation exercises for members of class 67 of the U.S. Naval Test Pilot School.

## REACT Ends

The REACT Program has now ended, according to Cost Reduction Officer, Merv Hughes.

Ideas submitted through REACT saved over three and a half million dollars and provided stimulus to other programs designed to develop and report cost savings.

"Perhaps the most important result of REACT was to boost creativity and instill more cost consciousness and awareness at JSC," Hughes commented.

He added that other centers are exploring ideas for similar projects for use in their Cost Reduction and Productivity Improvement Programs.

Dr. Christopher C. Kraft, JSC Director, says all participants in REACT will be recognized.

## JSC's First Medical Interns To Complete Projects Soon

JSC's first medical interns will soon complete their tours of duty in the Life Sciences Directorate. Students participating in the program include Janet Carr, Meharry Medical School; Michael Darden, Howard University Medical School; and Deborah Ponds, Georgetown University.

Recently established, the medical intern program provides highly motivated students the opportunity to apply their knowledge in assisting with research projects while gaining experience and insight into the role of the biomedical sciences in support of manned spaceflight. Under the guidance of experienced specialists, the students this summer were given challenging assignments in the areas of their interests.

Assigned to the Food and Nu-

trition Branch, Deborah Ponds is involved in a study to determine how a particular diet is metabolized through the body. The project involves analyzing samples for chlorides. She is also testing numerous food samples for staphylococcus bacteria. Ms. Ponds will graduate from Georgetown University this summer with a B.A. in biology, and plans to attend medical school at Howard University. She feels that her college courses have contributed significantly to her ability to function in her assignment here. "Although I was not involved directly with the ASTP mission, I feel that my work here will benefit future missions and will further enhance knowledge of the human body," Deborah remarked.

(Continued on page 4)



Carr

Darden

Ponds

# Looking Over The Show of the ASTP Crew



Slayton and Leonov in Orbital Module



Brand in Command Module



Brand in hatchway between Apollo Command Module and Apollo Docking Module



Slayton, Leonov and Stafford in Orbital Module



Apollo Flight Directors for ASTP in MO



Slayton eating in Command Module



Slayton in hatch between Apollo Docking Module and Soyuz Orbital Module.



ASTP Leonov Cart



Frogmen at the Recover

## *The Last Apollo*

By Deah'dra Anne Womack

*the last Apollo  
thundered into the heavens and hovered  
for the last glimpse of an era –  
the event intended for symbolic irony  
the last of a kind exercising future utility  
in the form of rescue ...  
the last word before extinction ... perfection  
the collective voice of Apollo speaks with tern  
“How excellent I have been, as an idea, as a  
as an accomplice to learning ...  
I have thrilled you ... and indeed  
you have payed less dearly for my adventur  
no war or revolution could have inspired  
the collective imagination of a people as mi  
Thundering ‘fire and smoke’ I lifted my ma  
structure above the mire of bureaucracy the  
my existence ...  
Beyond my procreators I emerged an imma  
bringing implied human transience home to  
with all that surrounds us infinitely.”*

# lders !

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an implicit bond



Apollo liftoff



Kubasov and Leonov in Orbital Module



Leonov in Soyuz Orbital Module shows off drawing of Stafford



CR following splashdown.



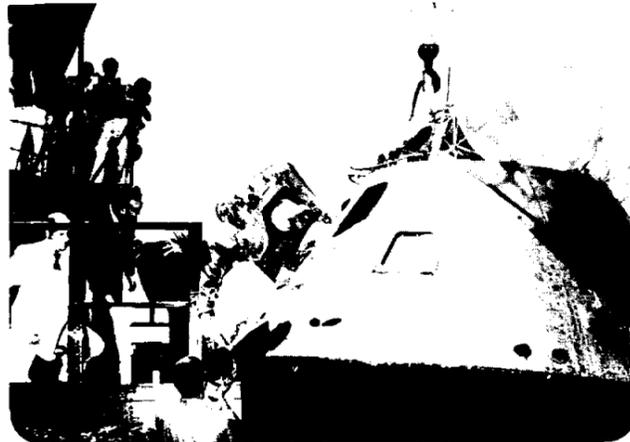
Russian Room occupants view Soyuz landing



Kubasov, left and Stafford are shown during a visit by the two crewmen to the Soviet Soyuz Orbital Module



oon



Crewmen descend the Command Module



Astronauts talk to President Ford as they sit onboard the USS New Orleans



y scene



ASTP ASTRONAUTS—These 10 American astronauts composed the U.S. prime crew, the back-up crew and the crew support team for ASTP

# Roundup Swap-Shop

Swap Shop advertising is available to JSC and on-site contractor personnel. Articles or services must be offered as advertised, without regard to race, religion, sex or national origin. Ads should be 20 words or less, including home telephone number. Name and office code must accompany, but need not be included in ad copy. Typed or printed copy must be received (AP3 Attn: Roundup) by Thursday of the week before publication.

## VEHICLES

68 Corvette, two tops, white, blu int, make ofr, Horton, 334-2360.

64 VW Sedan, fair cndn, makes 25 mi trip to work daily and weekend fishing trips, \$300, 946-4860.

71 Opel 1900, air, am, 38,000 + mi, 20 + MPG in town, Boone, 3571 or 488-6380.

71 Plymouth Road Runner, loaded, \$1900, xint cndn, 534-3243 aft 5.

Need a tax shelter? Buy my airplane and I'll lease it back, 73 Beechcraft Sundowner. 700 hrs ngn time, full IFR panel: dual NAV/COM, ADF, DME, TXP. ELT, glide slope, marker beacon, \$21,000, Schmidt, 644-7777.

70 Thunderbird, nw maroon paint, loaded, great cndn, will sacrifice and sell sev hun dollars below blu book value, 534-3469.

10-spd boy's bike, 27" Schwinn, many accessories, li nw, 482-7858.

Girl's 26" 1 spd bike, \$15, boy's small frame Raleigh 26" 3 spd bike, \$40, 334-2180.

16" travel trailer for rent, self cont, slps 6, xint cndn, 488-2387/488-2816. New Coleman camper for rent, complete kitchen, delux cndn, slps 6, water tank, dinette, lights, 488-2387.

68 Caprice Wgn, lw mi, auto, air, 333-4909.

63 Ford Pick-up w/ camper shell, blt in cabinets, nw tires, a/c kit not installed but incl, \$500, Boles, 2131 or 471-3709.

70 Ford 4-dr ht all pwr Gaxi 500, \$1250, Boles 2131 or 471-3709.

71 Chevelle Malibu V8, a/t, p/s, a/c, nw tires, orig owner, xint, 481-6439.

74 Chev 1/2 ton Custom 10 pickup, 6 cyl, STD shift, nw tires, 481-6439.

73 Enduro 100 Yamaha street or trails, engn is in xint cndn, \$475 cash, 488-4276.

71 Merc Comet 4-dr, 302 V-8, auto trans, ps, radial tires, \$1000, 333-3587.

70 Plymouth Fury III, 4-dr Sedan, auto, air, pwr, \$900, aft 5, 943-0697.

66 Dodge Coronet 440, 2-dr ht, air, auto, small V-8, vry clean, \$425, 941-0489.

Men's 10-speed racer, Murray "Fleetwood," xint cndn, year old, new \$130, now \$75 (inclu cover, chain and lock), Lynn, 946-3907.

## MISCELLANEOUS

One pair each of ladies/child's white ice skates sizes 6 and 7, \$5 per pr, Ed, 4401.

Jetco, sea scope depth finder, xint cndn, 12v, \$42, 6343 or 334-2108.

Trailer hitch, valley tow rite, #589820 class 1, 2000 lbs, fits 73 Ford Galaxie or LTD or 73 Mercury Monterey or Marquis, 6343 or 334-2108.

Battery charger, 8 AMPS, \$15, 6343 or 334-2108.

KOWA Six reflex, Jap, Hass, li nw, make ofr, Horton, 334-2360.

Leica 35mm camera, make ofr, Horton, 334-2360.

Beautiful schefflera approx 8 feet tall, \$30, 644-5927.

Handmade heavy wrought iron fire-place tools, \$35, 944-5098.

12-string Yamaha guitar, xint cndn, \$125, 482-7858.

1 pr Marantz Imperial 6 speakers, 10" woofers, 1-3/4 tweater, walnut enclosures, superb condition, \$175, 488-3966.

Electric bass guitar w/case, \$80, 30 watt bass amplifier, \$25, Lenett, 2128 or 665-4001.

73 15 ft walk-thru windshid/40hp elec Merc li nw, galv trailer, many xtras, \$1875, Wilson, 7451 or 477-8585.

Riding lawnmower, 5 hp, gd cndn, \$125, Mistrot, 337-2991.

B Flat clarinet, Jean Cartier prof, four star, xint cndn, \$35, 472-3244.

Grand piano, 5'8" A.B. chase, beautiful burled mahogany, xint cndn, \$2,500, 554-6743.

## PROPERTY AND RENTALS

Well located 1/4 acre wooded lot, Indian shores at Lake Houston, golf course, clubhouse access, Dale Graham 944-9030 or Haines, 5371.

Will divide 75 acres farm for 3 Texas Veterans, \$600/acre, 481-0780 aft. 5

High lot overlooking Lake Palestine, across street from lake front lot, sloping lot w trees, house trailers in area, boat ramp within 1000 ft, swimming pool and recreation area in division, 190 mi n of Hous, 75x120, \$3000, Brenton, 2634 or 488-4372 aft 4:30 p.m.

4-2-2 Oakbrook/CLC, large lot on cul-de-sac, covered patio, lots of trees, family rm w cathedral ceiling, 7% GI loan, 488-5506.

Heavily wooded 2 1/2 plus acres w/ 270' frontage on Clear Creek, xint for prestigious homesite, \$26,940, 331-6967 aft 5.

Vacation beach cottage, Bolivar on Gulf, reasonable family rates by the week, Horton, 334-2360.

## HOUSEHOLD ARTICLES

Automatic Coffee Maker "Mr. Coffee," li nw, xtra filters incl, \$22.50, x6343 or 334-2108.

30" oven, Whirlpool elec range, li nw, 928-2273.

Modern dinette set, 5 pc, \$75, manual ice cream maker, \$5, 488-0178.

## PETS

Free half siamese kittens, blc/wh and tabbies, 331-5826.

2 yr old gelding (Bay) Cutter Bill line, vry gd and gentle horse, Rogers, 4346 aft 5, 332-5490.

Beagle pups ch sired, whelped April 11, 1975, shots compl, show and pet quality, 333-2436.

Loving seal point Siamese 9 mo old female kitten, free, 483-5309.

AKC reg wire hair fox terriers, male, 12 mos, \$100, female, 18 mos, pair, \$170, 482-0553.

## BOATS

14' Hobie Cat Sailboat complete w/ trailer; xint cndn, \$1000, Lenoir, 2311, 334-2627.

20' Gulf Coast Sailboat w/ xtras, xint cndn, \$3700, 928-2273.

Dingo sailboat 73, 15' trailer w/ trapez, \$1,000, x6495, 471-5974, just li nw.

19 ft Fiberglas deep V 101 hp 10, trailer, cutty cabin w/ head, many xtras, gd cndn, 2-yr-old, Wilkes, 1-925-3654 or 3231.

## WANTED

Want to form car pool from S. Post Oak/Hiram Clark area, hours flexible, Jeannie, 5834; aft 6, 433-3750.

Need large desk, sofa bed, sm round table w/ 2 ch, 482-3596 or 5510.

Carpool space available, 1 or 2 members to join established carpool from vicinity of Gulf Freeway/Parkplace Circle, 8:30-5, Johnson, 5028 or Girala, 4643.

Want portable gas grill complete w/ connecting lines, must be in good shape and reasonable price.

Need one intact copy of the Houston Chronicle, dated Sunday March 17, 1974, will pay up to one dollar, Ed, 4401.

Want baritone sax, bass clarinet and Selmer Alto sax in any cndn, 334-2028.

Want to trade 69 Cimatti motorcycle 160cc for 2 or 3 persons sailboat, 941-6859.

## LOST AND FOUND

Lost black Montblanc fountain pen w/ gold clip, Stanley, 488-5506.

## BUY U.S. SAVINGS BONDS



TOURS CENTER — During ASTP pre-mission activities, CBS Newsman Walter Cronkite toured a number of facilities at JSC. He is shown here in Building 13 with Bob White.

## Air Quality Study Reveals JSC Within EPA Standards

A status report on the Ambient Air Quality Study conducted at JSC was presented by a representative of the Life Sciences Directorate at a recent Pollution Control Committee meeting.

Results for calendar year 1974 to date indicate that the ambient air in the JSC area is well within the Environmental Protection Agency (EPA) national primary standards for suspended particulate concentration.

Sampling was conducted from January through October, 1974 using the Hi-Volume sampler located near building 263. In November 1974, four new sampler units were placed in service near buildings 15, 44, 223 and 302. At this time, sampling at building 263 was discontinued.

The average result of 24-hour air samples was 36 ug/m<sup>3</sup> (micrograms

per cubic meter of air) annual geometric mean for particulate matter. The EPA national primary standard is 75 ug/m<sup>3</sup> annual geometric mean in this area of pollution. Furthermore, the highest concentration detected for the year was 96.8 ug/m<sup>3</sup> and this was also within the national primary standard of 260 ug/m<sup>3</sup> for a 24-hour period.

The EPA has determined that the Galveston area has the potential for exceeding the established air quality standards within ten years for particulate matter, photochemical oxidants, and sulphur dioxide. As a continuing effort to provide reliable monitoring of JSC air quality, sampling and analysis for photochemical oxidants and sulphur dioxide may be included in future studies.

Join the Payroll Savings Plan.

## Medical Interns (Continued from page 1)

Michael Darden is also hopeful that his project will benefit humanity. He is working in the Cellular Analysis Laboratory on a study to determine why red blood cells change shape in zero gravity and under certain other conditions. "If I can find just one little bit of information about what's going on with that shape change, it may add data to research with sickle cell anemia as well as with other anemias," he said. He is concentrating on membrane proteins in the cell. Mike majored in biology at Williams College in Pennsylvania and has completed a year of medical studies at Howard. Although he is looking forward to continuing his studies in September, his most immediate objective is to complete his project, "It's like a special pet to me," he said.

With one year of medical school left to complete, Janet Carr is excited about entering the "world

of medicine." She hopes to be a pediatrician. Currently Janet is assigned to the Cellular Analysis Laboratory. Her project involves detecting antibodies to a particular bacteriological agent (Haemophilus Vaginalis). She says she is "quite impressed" with space technology.

"Not until you are exposed directly to the space program do you realize the vast technology that exists. Each time I go into a new building at the Center, it overwhelms me!" she exclaimed. Janet will graduate from Meharry next May and will then begin her clinical practice.

All three students will return to their respective schools at the end of this month.



## ROUNDUP

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The Roundup is an official publication of the National Aeronautics and Space Administration Lyndon B. Johnson Space Center, Houston, Texas, and is published every other Friday by the Public Affairs Office for JSC employees.

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Photographer: A. "Pat" Patnesky

## EAA Attractions

### TICKET CORNER

Available in Building 11 Exchange Store, X4814, 10:00 a.m. to 2:00 p.m., no refunds.

SPORTS — Houston Astros Baseball, \$3.15 reserve, \$4 box; SPECIAL PLACES OF INTEREST

— Sea Arama, adults \$3.25, children \$2.25; Disney Magic Kingdom cards, good at Disneyland and Disneyworld for special price ticket books and a 10% discount at most Howard Johnson's; Lion Country Safari cards, free; Six Flags Fun Seekers Club cards, free, entitles member and family to \$1 savings on each admission ticket to Astroworld, Six Flags Over Texas, Six Flags Over Georgia, Six Flags Over Mid-America and more; ABC Interstate Theatre, \$1.50; DINNER THEATRES, Windmill Dinner Theatre, \$14 couple, tickets for new show now on sale: "Marriage Go-Around" starring Bob Cummings will be at Windmill through August 17, make reservations now; Dean Goss Dinner Theatre, \$16 couple, tickets now on sale ... comedy by Carl Reiner, "Something Different" showing through September 7. Alley Theatre Corporate Coupons, send your order blank to EJ3/E. Smith; JSC/EAA Annual Picnic tickets go on sale August 18, see your EAA rep or go to Bldg 11, adults \$3 in advance, children \$2 in advance.

### NEW CLUB

If interested in raising and racing pigeons, make plans to attend a meeting of the JSC Pigeon Club. The organizational meeting will be held at the Gilruth Recreation Center, room 209 August 5 at 5:30 p.m. The objective of the club will be to promote raising and racing pigeons and helping to alleviate the problem of housing space and the rising cost of feed. Contact Hans Fenneburg, 2363 for more information.

### SOFTBALL

The first EAA softball season has ended with the women's champion, the Blazers repeating last year's undefeated performance. The Mets were also undefeated in capturing the title in the first competitive Independent League. Completing the trio of unblemished records are the NADS, winners of their division in the Recreational League and eventual champs of the Recreational League Playoff Tournament. The NADS started the tournament with an 18-0 thrashing of the Hustlers. Following victories over the EZ Riders and the Dynamids, the NADS team defense led the way to an 8-2 championship win over SOPAC.

### VOLLEYBALL

The 1975 EAA Mixed Volleyball League will begin in mid-September. Registration for the seven week season must be made at the Gilruth Recreation Center between August 25 and 29. Entry fee for the league will be about \$25, depending on the number of teams entering.

### CALCULATORS

The Building 11 Exchange Store has in stock for immediate sale a complete line of Hewlett Packard scientific and financial hand held calculators, including the HP-21 and the new HP-25. The HP-25 will perform all the calculations of the HP-45 and most of those of the HP-55. The HP-45 and 55 are being phased out but can be ordered as long as there is factory stock available. Desk model calculators and all accessories can be ordered on request with a nominal two-week delivery. Complete data on each calculator is available at the store counter. Prices are: HP-1, \$108; HP-25, \$169; HP-65, \$686; HP-70, \$142; HP-80, \$254.